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ABSTRACT

Most recent initiatives to improve teaching may be characterized as top-down, compliance-oriented policies that seek to increase accountability and regulate different aspects of the profession. Little regard has been paid to the development of assistance programs at the state level that aim at building capacity among teachers and local school systems and that call for or allow significant discretion and involvement on the part of local teachers and administrators in policy development, adoption, and implementation. This paper describes the Arkansas Classroom Management Training Model, a state-level assistance program for teacher improvement that was developed through a collaborative effort involving the Arkansas Department of Education, local school systems, and an educational researcher. A description and a brief history of the program are presented, and research findings on the conditions necessary to the successful adoption, implementation, and continuation of educational innovations are examined in detail to explain the initial success of the program. A general model is presented that is based on the Arkansas model, for the development and implementation of staff development programs that link research, training, and practice. References, tables, and figures are appended. (JD)

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RESEARCH, TRAINING, AND PRACTICE:

OUTCOMES AND IMPLICATIONS FOR STAFF DEVELOPMENT

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RESEARCH, TRAINING, AND PRACTICE:

OUTCOMES AND IMPLICATIONS FOR STAFF DEVELOPMENT

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A great deal of concern has been raised in the past few years about the status and future of this nation's public schools. A central focus of that concern has been the quality and effectiveness of teachers. In response to this concern, state and local policy-makers have begun to develop and implement an array of policies, programs, and practices that aim to improve the effectiveness of teachers in classrooms. Many of these initiatives have the potential to alter teaching in dramatic ways.

Current policy initiatives to improve teaching may be classified in two different ways (see Figure 1). First, policies may be classified according to general strategy used to achieve policy objectives (Elmore and McLaughlin, 1982). They may seek to regulate or induce compliance or they may seek to provide assistance or build capability. Second, policies may be classified in terms of implementation (Elmore, 1980). They may be either top-down policies in which policymakers in superordinate positions or higher levels of government develop and impose policies on local implementors, or they may be grassroots policies that are implemented and controlled in varying degrees at the local level.

Most recent initiatives to improve teaching, particularly those that have been recommended by recent national commission reports and those that have originated from state legislatures and state departments of education, may be characterized as top-down, compliance-oriented policies that seek to increase accountability and regulate different aspects of the profession (Mitchell, 1986). Little regard has been paid to the development of assistance programs at the state level to build capacity among teachers and local school systems and that call for or allow significant discretion and involvement on the part of local teachers and administrators in policy development, adoption, and implementation.

In this paper, we describe a teacher improvement program, the Arkansas Classroom Management Training Model, that is unlike many of the policies and programs that are part of the current reform effort to enhance teacher effectiveness. It is a state-level assistance program that was developed through a collaborative effort involving the Arkansas Department of Education, local school systems, and an educational researcher. The program is implemented and controlled at the local level. We will present a description and a brief history of the program, including an account of its development, adoption, implementation, and continuation. We will look to the theory and research on change and innovation to explain the initial success of this program. We conclude by presenting a general model based on this case for the development and implementation staff development programs that links research, training, and practice.

The Arkansas Classroom Management Training Model

The Arkansas Classroom Management Training Model is a component of the professional development model for the state's Program for Effective Teaching (PET). The Classroom Management Model was designed to provide teachers additional insights and training to improve instruction and student learning through a more efficiently managed classroom. This model consists of a sequential set of activities developed to help teachers to improve decision-making skills related to classroom management. These activities seek to guide teachers toward improvement. The model allows flexibility in the selection of content for training and in the adaptation of content to individual teachers' needs and concerns related to their specific classroom contexts. It does not dictate teaching methodology and style. Indeed, the program encourages teachers to adapt what they learn to their individual classroom situations.

Program Content

The content of the Classroom Management Model is based on research on classroom organization and management and effective teaching. This content was validated through a program of research in six local school systems in the state (see Evertson, Weade, Green, and Crawford, 1985a). The model focuses on three broad areas of classroom management and components within those areas:

1. Planning

   a) the use of physical space in the classroom
   b) rules and procedures
   c) consequences for appropriate and inappropriate student behavior
   d) beginning of school activities

2. Presenting

   a) teaching rules and procedures to students
   b) instructional clarity

3. Maintaining productive learning environments

   a) developing systems for student accountability
   b) monitoring and adjusting student behavior and performance
   c) organizing for instruction
   d) developing strategies for the prevention of potential problems.

[The complete content of the model and its research base are presented in Evertson et al., 1985a,b.]

The Training Process

The training process is based on a peer instruction, training-feedback-training approach. Teachers, instructional supervisors, and local administrators who are certified trainers for the PET are trained as instructors for the Classroom Management Model. This selection of instructors allows for peer training and provides continuity among training activities focused on the different components of PET. Teachers participating in the program receive two days of training prior to the opening of school in the fall. Then, beginning the first day or no later than the third day of classes, participating teachers are observed twice within the first three weeks of school by trained observers who are also trained to observe teachers for other components of the PET. After each observation, the teacher and observer hold a conference during which time the observation is discussed. At the end of the third week of school, teachers receive two four-hour follow-up training sessions, followed by one additional observation and conference. After this cycle, the building administrator is to establish a system for ongoing observation and supervision of participating teachers. Throughout the training process, observations are used to assist teachers in their efforts to improve. They are not used to hold teachers accountable for current levels of practice.

Program Governance

The Classroom Management Model, as well as the Program for Effective Teaching, are administered and governed by the Arkansas State Department of Education's Division of Management and Development. These programs were initiated by the chief state school officer (CSSO). They are not based in legislation. The state department provides training manuals for classroom management program instructors and observers, incurring the costs for duplication and dissemination. It sponsors instructor and observer training workshops and requires that all instructors and observers for the program be certified. The state department provides technical assistance to local school systems to implement the Classroom Management Model. Finally, the state legislature has appropriated funds for basic support of district-level training in classroom management, funds that local school systems might apply to the implementation of this program.

Decisions to implement the Classroom Management Model fall to the local school systems. If they decide to use the program, they have discretion to select among activities contained in the training materials those that best address the needs and concerns of teachers and the specific contexts of individual schools and classrooms. The state requires no local evaluation of the program, nor does it require that local school systems make reports or keep systemmatic information about implementation. At present, the only requirements the state makes on local school systems are that instructors and observers are to be certified by the state and that local systems submit the names of teachers who complete the training program. Local school systems may obtain funds for basic support from the state, but must rely on their own resources for money needed above that basic level of support.

There were a number of factors and events that influenced the development and implementation of the Classroom Management Model. We now turn to a discussion of those factors and events.

The State Policy Context

The Arkansas Department of Education has long recognized a need for bringing state of the art knowledge of teaching to teachers, administrators, college professors, and others involved in training and supervising teachers. This recognition led state administrators to design a program, initiated by the CSSO, to improve teacher practice that would have an impact on local school districts' policies and on the improvement of student academic achievement. On the basis of reviews of literature on effective teaching and implementation of change in schools and an assessment of needs within the state, the Department of Education developed a model in 1979 for a professional development program on effective teaching. This model, the "Total Teaching Act," is drawn from the work of Madeline Hunter and consists of seven components:

1. Knowledge of Content
2. Planning Skills
3. Selection and Use of Appropriate Materials
4. Classroom Management Skills
5. Human Relation Skills
6. Instructional Skills
7. Knowledge of Human Growth and Development.

Between 1979 and 1982, training programs related to the instructional skills component of PET were developed and implemented in school systems across the state. The development and implementation of these training programs were initially underwritten by a grant from the Rockefeller Foundation. Local school systems later assumed support for this training, relying primarily on local and Title II funds.

The content of these programs focused on five areas that are complementary to classroom management: (1) selecting lesson objectives at the appropriate level of difficulty, (2) teaching to those objectives, (3) maintaining the focus of the learner, (4) using the principles of learning, including motivation, reinforcement, retention, and transfer, and (5) monitoring and adjusting.

The instructional skills training program consisted of a series of workshops that were held at the district level. Instructors were local personnel--including teachers, administrators, and instructional supervisors--who had been trained by the state to conduct these workshops. The state trained other district personnel to serve as classroom observers for this program. During this three-year period, over 10,000 of the state's teachers, 70 percent of the state's school principals, and at least 61 percent of local school systems in the state completed instructional skills training. Two studies assessing the relationship of this program to student performance on achievement tests suggested that this training had a positive effect on student academic performance (Dildy, 1982; Lane, 1982).

In view of the relative success of the instructional skills training, state administrators began to explore a second area classroom management skills. State department staff had polled teacher and administrator opinion in a variety of school systems across the state that had participated in the instructional skills training program. There was widespread agreement among both teachers and administrators in these school systems that a classroom management training model should be developed and implemented (Holmes, 1986).

Development and Adoption

In response to this expressed need from local school systems, the state department's Division of Management and Development began a search for a consultant to provide technical assistance in the development of a classroom management training model. Members of the state department staff and the CSSO had attended conferences in the spring of 1981 at which the principal author presented findings from research on classroom management and from experimental training in classroom management skills that she and her colleagues had conducted at the Research and Development Center for Teacher Education at the University of Texas-Austin. After these conferences, the state department asked the principal author to lead a classroom management workshop for state department staff and program officials. This workshop took place in the summer of 1981. In February 1982, the state department reached agreement with the principal author to help develop a classroom management training model for the state.

Initial program development. Between February and June 1982, the principal author worked with state department officials to develop components that might be included in the classroom management model. This initial planning stage focused primarily on the identification of effective classroom management strategies from research and of a training process that would be suitable for and agreeable to the state. A first draft of the training model was developed. It contained much of the content included in the Texas classroom management studies (see e.g., Evertson, Emmer, Clements, Sanford, Worsham, and Williams, 1981; Emmer, Evertson, Sanford, Clements, and Worsham, 1982) and the training process included components from both the state instructional skills training program and the Texas model (see Evertson, Emmer, and Clements, 1980).

In June 1982, the state department sponsored a conference for teachers and administrators of school systems that had successfully implemented the instructional skills training component of PET. Led by the principal author, this conference was organized to gain input from the local level about the need for, the content of, and the processes for the development and implementation of the classroom management training model. The content and training processes contained in the first draft of the model were presented. Then, conference participants discussed what parts of that content would be most appropriate and needed and what training processes might be most effective for their individual school districts. The CSSO introduced the conference with a presentation emphasizing the importance of classroom management for effective teaching and the need for a classroom management training model for the state's professional development program. His presence and support added legitimacy to the work of the conference and to the development of the training model.

At the conclusion of the conference, participants agreed that the content contained in the preliminary model was important and reported that the rank-and-file teachers within their districts advocated this type of content as well. In addition, participants reported that they were comfortable with the proposed training process. Their districts had had experience with this approach to training in their work with the instructional skills component of PET and they thought it had worked well.

After the June 1982 conference, the principal author continued to work with state department staff to further develop and refine the classroom management training model. Despite the support given by local school systems at the conference, the initial development process had left unanswered many important questions about the preliminary draft of the Arkansas model. Of particular concern was the applicability of various components of the Texas model to different settings in Arkansas. The principal author and the state department agreed that the Arkansas model should be validated in representative school systems across the state.

Validation of the model. In mid-summer of 1982, the state department recruited six school districts that represented the range of small-rural to large-urban districts across the state that had successfully implemented the instructional skills training component of the PET. In July, each of the six districts that agreed to participate in the validation study sent a staff member to be trained as the instructor for the Classroom Management Model. One requirement for being designated an instructor was that the staff member also be certified as an instructor in the instructional skills training program. The reason for this was to capitalize on talent already available in each of the districts, thereby saving time and resources, and more importantly to supply a common orientation and background for the training procedures. In addition, each district sent other staff members who would be trained as classroom observers. As in the case of the instructors, observers were required to be certified observers for the instructional skills component. The principal author trained both instructors and observers in a series of workshops sponsored by the state.

Upon return to their separate school districts, the instructors selected teachers to participate in the validation study. Two districts were asked to select, train, and study teachers in grades 7-9; four districts were to select, train, and study teachers in grades 1-6. Teachers were matched on the basis of teaching experience, subject area taught, and grade level, and then randomly assigned to experimental and control groups. One requirement for participation in this study was that all teachers (in both experimental and control groups) were to have had previous training in the instructional skills component of the PET. This condition was necessary in order to gain a clear assessment of the relative contribution of classroom management training to the teachers' overall performance. Teachers in the experimental groups were to be trained before schools opened in the fall of 1982; teachers in the control groups were promised training at a later date.

Training for the validation study took place at the district-level in late summer. Before schools opened, teachers in the experimental groups attended one full-day workshop led by the trained instructor. Then, during the first eight weeks of school, beginning with the first day of classes, teachers in both experimental and control groups were observed by the trained observers. In mid-October, teachers in the experimental groups attended a second full-day workshop. Finally, teachers in both groups were

observed two more times between that second workshop and the end of November. Five of the six school systems that had volunteered to participate successfully completed the training and data collection components of the study. (1)

In February 1983, the principal author met with the instructors and observers from each participating district to report the results of the study. Findings generally confirmed those from earlier research conducted in Texas (Evertson, Emmer, Sanford, and Clements, 1983; Emmer, Sanford, Clements, and Martin, 1982). For the elementary teacher sample (N = 70), the experimental teachers rated significantly higher as a group than untrained teachers in the following ways. They were clearer in describing objectives and lesson content; they had more efficient and appropriate classroom procedures and routines; and they were more consistent in managing student behavior. In addition, they had less student off-task behavior and more task-oriented classroom focus. For secondary teachers (N = 16), the experimental group rated significantly higher than the control group in similar ways. In addition, the trained secondary teachers also paced lessons more appropriately, had more efficient routines for lesson management, monitored and controlled student behavior more appropriately, and had less student off-task behavior. [See Table 1.]

These aggregate findings mask important differences among districts (see Table 2 for comparisons of illustrative findings among districts studying elementary teachers). For example, two of the larger districts studying elementary teachers (Districts C and D) had few statistically significant differences between treatment and control groups. However, comparisons show a trend toward improvement in the experimental groups and in no case did the control group means significantly exceed experimental group means. One possible explanation for these findings is that both of these districts have invested heavily in other staff development programs. Prior to and at the time of this study, these districts offered additional staff development activities to teachers that may have compromised the "no treatment" condition for the control groups. On the other hand, in two smaller, rural school districts that have fewer staff development resources ordinarily available (Districts A and B), a larger number of statistically significant differences were found.

Despite these differences in findings, all districts recommended state adoption and agreed to continue to implement the Classroom Management Model and extend the training to other teachers and schools. Individual school systems agreed to continue implementation for different reasons. Several chose to continue because of the improvements in teacher behavior that had resulted from training in the validation study. Other districts, particularly those in which significant changes did not occur, decided to continue implementation because participating teachers liked the program, because the districts believed that it had helped improve teacher morale, and because teachers in those districts who were not part of the validation study expressed a strong desire to participate in the training.

The principal author continued working with state department staff to prepare the final version of the classroom management training model. On the basis of findings from the validation study and comments and suggestions from participating school districts about how the model might be improved, the principal author completed training and observation manuals for the program. [Copies of these manuals are contained in Evertson, et al., 1985b.] Finally, in June 1983, the state department held a training conference in Little Rock, at which time the principal author

handed over the model to the state and the state publicly adopted the program. Later that year, the state legislature appropriated funds for local school systems to conduct classroom management workshops, funds that could be used as basic support for implementation of the Classroom Management Model.

Implementation, Continuation, and Incorporation

Because of the lack of requirements for data collection, we have little evidence about the implementation, continuation, and incorporation of this program at the district level. We do know, however, that the five districts that completed the validation study successfully implemented the program, continued to implement it, trained all their teachers, and incorporated the model into their ongoing staff development programs (Holmes, 1986). Several of these districts provided anecdotal evidence to the principal author of positive outcomes that had influenced their decisions to continue implementing the model. One district reported that in the first year of the program, a participating school had reduced its student discipline referrals to the school office from 75 to 3 and had maintained this low referral rate for several years. That district claimed that the climate for learning in this school had improved markedly and the school attributed this turn-around to the training model. Another district that had chosen to continue implementation reported improvements in both teachers' classroom performance and self-esteem. During a visit to this school district, the principal author observed and interviewed teachers who had participated in the program. All reported great satisfaction with the training. They believed that the strategies they had learned had helped them become better teachers. One teacher claimed with pride that her class went from "monster" to "model."

The state department's Division of Management and Development reports that to date approximately 150 local school systems—almost 45% of all systems across the state—have implemented the Classroom Management Model (Holmes, 1986). Each of these districts had sent staff members to be trained and certified by the state as program instructors and observers. Each district had received training materials and some form of technical assistance from the state. Some districts received assistance to set up their training programs. In other districts, state department personnel provided some of the actual training. The Associate Director of the division reported that the general response of implementing school systems toward the program has been very positive (Holmes, 1986).

Clearly, this evidence is not enough to draw strong conclusions about the implementation success of this program in Arkansas. To be more definitive, we would need much more information than we have—indeed much more information than may be available—about the training and observation processes as they were actually implemented, and the degree to which the fidelity of the model had been maintained. However, the information that we do have about implementation and the evidence we have about the adoption process and the characteristics of the program itself allows us to speculate about why implementation was likely to be successful and why these districts would continue to implement this program and incorporate it into their ongoing staff development programs. Our discussion below provides a framework for future data collection and analysis.

Explaining the Initial Success of the Model

In his extensive review of the literature on change, Fullan (1982) identifies several factors that contribute to the effective adoption, implementation, and continuation of educational innovations. Fullan's review focuses primarily on innovations originating at the district-level and implemented at the school-level. However, many of the factors he identifies seem relevant to this case of a state-level program implemented at the district-level. We present those factors in Table 3 as a checklist for the following analysis of the Arkansas model. (2) We borrow freely from Fullan's treatment of the issues and research to frame our discussion. Overall, we find that the Classroom Management Model satisfies most of the conditions related to the successful adoption, implementation, and continuation of educational innovations.

A. Adoption

1. Existence and quality of innovations. Given limitations of time, skills, and resources, organizations may look to existant innovations rather than create their own to meet perceived needs. The primary issues here include the availability of existant innovations related to these needs and their perceived quality. Those innovations that are thought to best meet an organization's needs and are perceived of high quality are more likely to be adopted.

   In the case of the Arkansas model, the state department looked for existant training programs in classroom management training. It had found a training model in the work of Madeline Hunter for the instructional skills component of PET and found a model for classroom management training in the work that had been conducted at the Texas R & D Center. The Texas model was based on classroom research and its content and training processes had been validated through experimental training programs. This model was of demonstrated high quality.

2. Access to information. Fullan contends that a specifically operative condition for adoption is the selectivity which occurs as a result of differential access to information about innovations. He argues that access to innovations depends on an infrastructure of communication, the ability of an organization to "find out" about existant innovations, and the degree to which information about innovations is disseminated.

   The Arkansas Department of Education possessed the resources, in terms of both time and personnel, to search for information related to classroom management training models. Much of that information, particularly that information originating from the research community, was presented in scholarly and practitioner journals and at national and regional conferences and workshops. In this case, the research on classroom management and the Texas training experiments had been published and had been presented at various conferences and workshops around the country. The state department had access to these and sponsored a workshop along with Southwest Educational Development Lab (SEDL) based on this research for administrators in the state.

3. Advocacy from central administrators. Fullan argues that adoption of innovations never occurs without advocates. One of the most powerful advocates is the chief administrator of an organization, with his or her staff, especially in combination with the support or a mandate from the organization's governing body. He finds that it is the chief administrator and central staff who combine access to information, internal authority, and the resources necessary to seek out external funds for a particular innovation and to obtain the political support that is necessary for adoption.

   In this case, both the CSSO and members of his staff advocated the development and implementation of a training program in classroom management. Both actively supported the Texas model as a starting point for the development of the Arkansas program. This advocacy was manifest both in spoken public support of the need for classroom management training and components of the model, but also in the provision of resources for the planning and development of the model.

4. Teacher advocacy. While framed in terms of the adoption of innovations at the classroom level, Fullan's discussion suggests that teacher advocacy is an important, although not a necessary factor, in the adoption of district-level or state-level innovations. States and school districts may adopt innovations without the support of teachers. Indeed, they may adopt innovations that teachers actively resist. However, it seems that the adoption process is promoted when teachers do not actively resist and even support the innovation and, as we will discuss below, implementation is enhanced when teachers, as implementors or recipients of program services, have advocated adoption of the innovation.

   In this case, teacher advocacy for the adoption of a classroom management training program is evident from several sources. The first is the state department's assessment of teacher opinion conducted prior to the initial planning of the model. This assessment showed that teachers (and local administrators) in key school districts throughout the state supported the development of a classroom management training program. The second source is opinion expressed at the June, 1982, conference of teachers and local administrators. At this conference, participants expressed support of the training model and reported that the teachers they represented advocated such a training model as well. Finally, teacher advocacy was reported by representatives of school systems that had participated in the validation study.

5. Linking agents. The presence of linking agents (such as administrative support staff, state or federal field agents, or consultants) may promote the adoption process, depending on the degree to which those agents adequately represent and bring together the views of different actors, including decision-makers, implementors, and program recipients. In this case, linkages between actors were promoted through the collaborative planning process, which included members of the state department staff, representatives of local school systems (including teachers), and the principal author who served as consultant to the project. It was through this process, and through the work

of the state department staff and the principal author, that the needs and concerns of teachers and local school systems were communicated to state decision-makers. The legitimacy of the principal author as a linking agent derived from her previous work as a classroom researcher, her work in the field with teachers and administrators, her scholarship, and her residency in the state before her involvement with this program.

6. Availability of funds. Fullan finds that the availability of financial resources is a powerful stimulant for adoption of innovations. In this case, the availability of funds promoted adoption in two ways. From the state level, the availability of funds provided a necessary prerequisite for planning and development activities, especially the surveys of teacher opinion, technical assistance, the planning conferences, and the validation studies. From the district level, the financial commitment on the part of the state to publicize the program, to pay for the duplication and dissemination of training materials, and to provide technical assistance for implementation may have contributed to local support of the program and recommendations from districts participating in the validation studies to adopt it.

7. New central legislation or policy. Fullan finds that the presence of new legislation at the state or federal levels may give great impetus for the adoption of programs at the local level. Implied in his discussion is that recently adopted legislation or policy may serve to promote adoption of new related innovations at the same level. We suggest that this may be the case particularly in situations where recently adopted policy has left important needs and concerns unaddressed. In this case, the state had adopted and had implemented the instructional skills training component of the PET with a great deal of success. These initiatives, coupled with expressed recognition of and need for a classroom management training model, provided a supportive context for the adoption of this new program.

8. Problem-solving and bureaucratic orientations. Fullan argues that adoption decisions are characterized either by a problem-solving or a bureaucratic orientation. Program adoption from a problem-solving orientation is associated with meeting perceived needs, dissatisfaction with current levels of performance, and/or a search for resources. Adoption from a bureaucratic orientation is associated with efforts to add resources without requiring behavioral change, responses to external pressures, and/or pressures of approval of peer elites. Fullan finds that a problem-solving orientation is correlated highly with the total number of innovations an organization adopts. And, as we will discuss below, the orientation the guides the adoption process has important implications for implementation.

The adoption of the Arkansas Classroom Management Model seems to have been guided primarily by a problem-solving orientation. Rooted in PET, this model was conceived of and developed in response to both state-level and local needs and concerns about the improvement of teacher practice in the classroom. The bureaucratic orientation does not seem as influential. The

development of PET did occur at a time when state departments of education and local school systems were beginning to develop training models for the improvement of practice. As such, there may have been some external pressure for the development of such models in Arkansas. However, these programs and the classroom management training model preceded the national commission reports that drew national attention to the status and problems of the teaching profession and student achievement and the rush of state departments of education soon thereafter to develop and implement policies and programs to remedy those problems (see Mitchell, 1986).

In summary, the events and conditions that led to the state adoption of the classroom management model coincide with those factors identified in the research that are associated with the successful adoption of innovations. A program of demonstrated quality existed and policymakers had access to information about that program.

There was advocacy from both central and local administrators and teachers. Linking agents were present and resources were available to set in motion the development and adoption process and later to implement the program. Recently adopted and implemented programs for the improvement of practice and the tendency toward a problem-solving orientation provided a favorable context for the adoption of the model.

B. Implementation

A. Characteristics of the innovation. Fullan finds that there are four general characteristics of innovations that relate to successful implementation. Those characteristics include (1) the relationship of the innovation to perceived needs, (2) clarity about goals and means to achieve them, (3) complexity of the innovation, and (4) the quality and practicality of the innovation. We now turn to a discussion of each of these characteristics as they relate to the implementation of the Classroom Management Model.

1. Need. The literature suggests that change efforts must address what are perceived to be priority needs. The identification of a need linked to the selection of an innovation is strongly related to successful implementation. Indeed, implementation is more successful when the innovation is relatively focused on specific needs.

We have demonstrated that the development and adoption of the Classroom Management Model was in response to a specific need for training in this area as expressed by both policymakers at the state level and teachers and administrators at the local level. While we have no information to determine the specific sources of this expression of need, we can identify several possibilities. The first source is everyday classroom experience. Second, this need may have become more pronounced as teachers became more familiar with the different dimensions of effective teaching strategies through PET and as implementation of strategies learned through the instructional skills training component of

PET created concern about classroom management skills. The research on teaching indicates that classroom management sets the stage for effective instruction and student learning (Good, 1983). Indeed, teachers may have realized that they could not be as effective in the area of instructional skills without additional training related to classroom management.

2. Clarity about goals and means. Fullan argues that lack of clarity, diffuse goals, and unspecified means of implementation present major problems at the implementation level. The innovation must be clear about what it means in practice. The Classroom Management Model is based on clear theories and specific strategies for classroom behavior that are explicitly stated in training manuals provided to local implementors by the state department (see Evertson et al., 1985b). These manuals describe the training process, specific activities that could be selected by trainers, procedures for classroom observation, and outcomes that are to be encouraged.

   While the manuals specify the means by which this training model is to be implemented, and while local personnel are trained and certified by the state to implement the model, the opportunities for technical assistance from the state, and indeed from other implementing school systems, provide an additional means for avoiding confusion and ambiguity in the implementation process.

3. Complexity. Complexity refers to the difficulty and extent of change required of the individuals responsible for implementation. Fullan states that the actual amount of complexity depends on the starting point for any given individual or group. The central issue here is that any change must be examined in regard to the difficulty, skills required, and the extent of alterations in beliefs, procedures, behaviors, and use of materials. Fullan finds that complexity usually creates problems for implementation, but complexity may result in greater change because more is being attempted.

   It is impossible to judge how difficult it has been or would be for local school systems to implement the Classroom Management Model without additional information. However, we may speculate that the similarities between this model and the instructional skills training component of the PET may have reduced the actual level of difficulty in implementation. Most school systems in the state had had experience implementing the instructional skills training component. The Classroom Management Model relies on a similar training process and therefore does not require the implementation of completely new approach to training.

4. Quality and practicality of the innovation. Fullan finds that program quality, especially proven materials demonstrating how to use a program, significantly influences implementation. Fullan raises the dilemma of program explicitness in implementation. If innovations are highly explicit, they may be inappropriate for most of the variety

of contexts in which they are to be implemented. On the other hand, to leave innovations unspecified leads to great confusion about what to do in practice. In addition, for implementation to gather any momentum, he argues, implementors must experience some sense of meaning and practicality relatively early in the process of attempting change. Otherwise, implementors are likely to eventually abandon their efforts.

The Classroom Management Model seems to resolve, at least to a certain extent, this dilemma of explicitness. The program is very specific with respect to program content and training processes. However, the model allows local discretion in the selection from the total training package that content and those activities that are most appropriate to their local needs and contexts.

While we do not know much about the implementation of this model in other districts, those that participated in the validation study experienced early success with the model (in terms of behavior change or with respect to teacher attitudes) and this early success is likely to have been an important factor in expanding training to involve other teachers in schools in those districts.

B. Characteristics at the state and district levels. Fullan identifies six relevant characteristics that have important relationships to implementation success. These characteristics include: (1) the history of innovative attempts, (2) the adoption process, (3) central administrative support, (4) staff development and participation, (5) participation in implementation decisions, and (6) time-line and information systems. While these characteristics were derived from research on innovation at the school district level, we suggest that they are useful to apply to innovation at the state level as well. We now turn to a discussion of each of these characteristics as they apply to the Classroom Management Model.

1. The history of innovative attempts. Fullan finds that the history of innovative attempts has significant influence on the implementation of new programs and policy. He argues that implementors who have had negative experiences with previous innovations tend to become more cynical or apathetic about new programs regardless of their merit. On the other hand, he contends that successful experiences tend to make implementors more receptive to new programs, thus increasing the likelihood for successful implementation.

In this case, the state had come off of a relatively successful experience in implementing the instructional skills training component of the PET. Implementing school systems, at least those that participated in the Classroom Management Model validation study, reported favorable experiences with implementation of this previous training program. This experience laid the groundwork for district-level receptivity for the Classroom Management Model.

2. The adoption process. Fullan argues that bureaucratic-oriented adoption decisions are generally followed by limited implementation. Subordinates usually become indifferent to implementation, particularly if superordinates do not make serious follow-up attempts or provide the resources and training necessary for implementation. However, a problem-solving orientation increases likelihood of implementation success. Fullan finds that while participation in adoption decisions and/or program development is not necessarily related to successful implementation, the quality of the planning and adoption process, as perceived by local implementors, is essential. If the planning and development process results in a specific, high quality, needed innovation, or a broad-based flexible program whose general direction is compatible with the needs of local districts, the policy or program is likely to have a sufficient start.

We have argued that the Classroom Management Model was developed and adopted from primarily a problem-solving orientation. Planning resulted in a specific, high quality (as based in research and demonstrated through the validation study), needed innovation that also contained provisions for flexibility in implementation so that school districts could adapt the program to address their more specific local needs and concerns. In addition, there was local participation in the development and adoption of the model through the state assessments of teacher and administrator opinion, state-level workshops and conferences, and the involvement of local school systems in the planning and validation stages of program development.

3. Central administrative support. Fullan finds that the support of central administrators is critical for change in local practice. Mere support or general endorsement of new programs has very little influence on change in practice. Support must be demonstrated through action. In this case, central administrative support was demonstrated in several ways. First, the CSSO initiated and expressed public support for the program. Second, state department support was manifest in the resources that were provided and the processes that were implemented for the planning and development of the program. Third, that support was demonstrated by the state's provision of instructor and observer training, materials, and technical assistance to implementing school districts. Finally, the state legislature provided basic support through the appropriation of funds that could be used to implement the model. We have no information to judge the adequacy of state support for implementation of the model.

4. Staff development and participation. Fullan argues that the essence of educational change consists of learning new ways of thinking and doing, new skills, new knowledge, and new attitudes. It follows, he finds, that staff development is one of the most important factors related to change in

practice. In this case, the state requires systematic training and credentialing of all program instructors and classroom observers. In addition, the training manuals provided by the state provide explicit instructions for training and observing teachers at the school district level.

5. Participation in implementation decisions. Fullan finds that local participation in implementation decisions is important for two reasons. First, participation in these decisions builds acceptance and advocacy for the innovation. Second, the identification and solution of implementation problems requires local decision making. Fullan argues that implementation almost always involves further clarification, specification, and development or refinement in the innovation. Persons who are closest to the problems and progress of program activities are in the best position to suggest remedies for perceived deficiencies.

One of the important characteristics of the Classroom Management Model is the discretion in implementation it allows local school systems. Initial decisions to implement the program rest with local systems and once a decision to implement is made, local systems have discretion to choose among activities contained in the program those that best address the needs and concerns of their schools and teachers. They may adapt and refine the training process, within the general framework described in the program, to relate to their specific contexts.

6. Time-line and information systems. Fullan finds that unrealistic time-lines add to the burdens of program implementation. In situations where inadequate time is provided for implementation, necessary materials and resources may fail to arrive on schedule, orientation and training are neglected or carried out perfunctorily, and communication about implementation is hurried and frequently overlooked or misinterpreted. Implementors may become overloaded with the requirements of the new program. Fullan also points out that open-ended time-lines are also problematic because they create ambiguity about what is expected when and what constitutes implementation progress. He argues that time-lines must be reasonable and that systems be established to collect information about implementation progress that might be used to diagnose and solve implementation problems.

In this case, there are no time-lines specified by the state for local school systems to decide to implement this program. However, the training process itself contains very specific time-lines that should be followed. Teachers should receive training before schools open in the fall; they must be observed a specified number of times beginning in the first week of school; teacher-observer conferences must follow each observation; follow-up training must be provided at the end of the third week of school which must be followed by another observation and conference. These time-lines are very specific and it is likely that unless local school systems plan far enough ahead to obtain

training materials from the state and train their instructors and classroom observers, they might place considerable burden on local implementors. These time-lines do provide a systematic way for local school systems to determine whether implementation is on track. However, failure of the state to require any kind of systematic record keeping, implementation assessments, or evaluation reports places the burden on local implementors to devise mechanisms to assess their own implementation progress and to identify problems with the program and the implementation process.

In sum, the characteristics of the Classroom Management Model and certain characteristics at the state and school district level satisfy many of the conditions that seem important to program implementation. There was expressed need for the program at both the state and district levels.

The program itself, while in some sense complex, is clear with respect to its goals and means for implementation. In addition, it is a quality program that has demonstrated positive practical outcomes. Further, the program was developed at a time when the state and local school systems had experienced a great deal of success with the implementation of the instructional skills training component of PET and the adoption process, including the planning, development, and validation phases, created conditions that favored successful implementation. The state demonstrated its support of the program through action and through the provision of resources for both development and implementation. Staff development—training of instructors and observers—is a required component of the model. Provisions are made for local participation in implementation decisions and time-lines are specific enough to provide guidance in implementation.

C. Continuation

A. Fullan identifies six factors that relate to continuation of innovations. These factors include: (1) continued financial support, (2) continued support from central administrators, principals and teachers, (3) staff turnover, (4) degree of initial implementation, (5) attitude toward the innovation, and (6) impact of the innovation on students, teachers, and schools. We discuss these factors as they relate to this case below.

1. Continued financial support. Fullan finds that continued financial support for an innovation is an important determinant of its continuation. Without continued financial resources, local districts are often left without funds for further implementation. If districts are unwilling or unable to raise the resources themselves—either from other external sources or from cuts in other programs—it is likely that they will discontinue the innovation. In this case, the technical and financial assistance provided by the state has remained constant since 1983 (Holmes, 1986).

2. Continued support from central administrators and local districts. Continued support from administrators and implementors is an important condition for program continuation. Fullan finds that without such support, innovations are likely to become displaced and eventually discontinued. In this case, the state continued to advocate the model after initial implementation as did implementing local school systems (Holmes, 1986).

3. Staff turnover. Fullan finds that staff turnover has a negative relationship to program continuation. Infusions of new personnel may dilute advocacy for the innovation and require additional orientation and training. In the years following implementation of the Classroom Management Model, state department staff associated with the program and local school district staff remained relatively stable. This stability provided continuity in support for and expertise related to implementation of the program.

4. Degree of initial implementation. Degree of initial implementation has important consequences for program continuation. Fullan argues that there is little incentive to continue a program that is only partially implemented or is not implemented well, particularly if initial implementation has had little impact or a negative impact. In this case, we know little about the actual levels of initial implementation except in those five districts that participated in the validation study. These school districts completely implemented the program during this study, and each reported positive attitudes about and impact of the innovation, factors that we shall examine below.

5. Attitude toward the innovation. Fullan finds that attitude toward the innovation is an important factor in program continuation. If a new program is well-received and if attitudes toward that program are initially and continue to be positive, the likelihood of continuation is increased. If the innovation is initially disliked or if dislike develops or worsens, it is likely that the innovation will receive less support and attention and will be discontinued. According to reports from implementing school systems, the Classroom Management Model was well-received and attitudes of both teachers and administrators toward the program has remained positive (Holmes, 1986).

6. Impact on students, teachers, and schools. Real and perceived impact of an innovation on students, teachers, and schools is a critical factor in program continuation. Fullan finds that districts that experience positive program impacts are much more likely to continue implementation than districts that experience no impact or negative impact. It makes no sense for districts to continue implementation of an innovation that does harm or that uses scarce resources without positive outcome. To date, we know only about the impact of this program in the five districts that participated in the validation study. Some of these districts experienced significant positive changes in teacher behavior; others experienced improvements of teacher

morale and self-esteem. Some districts attested to the improvements the program had made in remedying problems at the school level. And, there is evidence to suggest that the program has had a positive impact on student achievement (see Evertson et al., 1985a).

In summary, continuation of the Classroom Management Model seems to have been promoted by several factors. Financial support from the state continued as did advocacy for the program among state and district administrators and teachers. Staff turnover seems to have played no significant role. In each local school system that participated in the validation study, initial implementation was complete and each reported some type of positive outcome related to the program.

Incorporation

We do not know very much about the factors that relate to the incorporation of new programs into the ongoing activities of school systems. It seems clear, however, that the factors related to implementation and continuation are pertinent (Fullan, 1982; see also Berman and McLaughlin, 1977). The incorporation of the Classroom Management Model into the ongoing staff development activities of implementing school systems is likely to be promoted by the discretion and flexibility for local decision making contained in the program. In addition, the relationship of the Classroom Management Model to the instructional skills training component of PET increases the likelihood that it might be incorporated as part of a broader training program to improve teachers classroom skills.

Toward a Model for the Development and Implementation of Staff Development Programs

This case leads us to suggest a general model for the development and implementation of staff development programs that links research, training, and practice. Our model, depicted in Figure 2, has four stages: (1) exploration, (2) experimentation, (3) exportation, and (4) evaluation. The case of the Arkansas Classroom Management Training Model to date takes us through the first three stages of this model.

The first stage began with early correlational studies that identified certain teacher behaviors and practices that related empirically to student outcomes, specifically student achievement gains and on-task and off-task behavior. These studies found that the ways teachers organized and managed their classrooms had important relationships to effective instruction and to student learning and behavior (e.g.,Stallings and Kaskowitz, 1974; Brophy and Evertson, 1976; Brophy, 1979; Stallings, 1980; Evertson, Anderson, Anderson, and Brophy, 1980; Evertson and Emmer, 1982). The second stage involved a series of experiments that sought to determine whether teachers could be taught to implement these behaviors and practices. The experimental training projects conducted by the principal author and her colleagues at the Texas R & D Center showed that training could make a difference in the ways that teachers organized and managed

their classrooms (Evertson, Emmer, Sanford, and Clements, 1983; Emmer, Sanford, Clements, and Martin, 1981). The third stage involved taking the findings from this research and these training experiments and exporting them to the field through their incorporation in policy. This process of exportation is the story we have told in this paper of the development and implementation of the Arkansas Classroom Management Model.

We have demonstrated in this case that the findings of research can be effectively exported to the field through program development, adoption, and implementation. This case makes two important points. This process of exportation may be influenced by a number of factors that relate to the successful adoption, implementation, and continuation of innovations.

We have explored these factors at length above. What seems very important is the discretion of school districts to adapt the model to their local needs and concerns and the empowerment of teachers to adapt the content of the model to the specific contexts of their classrooms.

Second, the exportation of findings from research to practice may depend a great deal on how research is used in programs and policy. In general, the use of research on teaching in policy may be represented along a continuum. At one end of this continuum, research may be used to encourage and to provide direction for improvement efforts. At the other end of this continuum, research may be used to prescribe behavior and change. Most current policy initiatives to improve teaching seem to use research as a basis for prescription (cf., Mitchell, 1986).

The Arkansas Classroom Management Model uses research to guide improvement and practice. The program allows local discretion in the selection of content for training to address local needs, concerns, and contexts. It encourages teachers to adapt what they learn to their individual classroom situations. And, this makes sense. The research on teaching does not provide answers to all questions nor does it solve all problems for teachers across the myriad of contexts in which they work. The research on teaching has made giant steps in the past 15 years. We know a great deal more about teaching and classroom processes than we ever have. However, this body of research has not examined everything we would like to know about teaching. And, while there is growing agreement about the importance of many teaching behaviors and processes, the research finds that these behaviors and processes are not equally effective across different contexts (e.g., Soar and Soar, 1983). Many of the findings from the research on teaching derive from studies conducted in limited contexts (e.g., grade level, subject matter taught, academic ability of students). Most of the recent research on teaching, particularly that research from the process-product tradition, seeks to control context (see Evertson and Smylie, in press). We face a problem of generalizability when we look to existing research for information to develop programs to regulate and prescribe practice.

Given that research on teaching has been and remains a viable and valuable resource for the development of policy, we must strive to expand our knowledge so that we may discover new ways to help improve practice. One way we might do this is through systematic evaluation

of current programs. This is the fourth stage of our model. In the Arkansas case, the state department of education has embarked on a comprehensive evaluation study of the Classroom Management Model that will examine both implementation processes and outcomes at the school and classroom levels. Data should be collected and analyzed by the end of 1986.

A second way to expand our knowledge to improve practice is to use what we have learned to begin again the process described in our model to address the needs of teachers in different contexts. The Arkansas Classroom Management Model was developed from research conducted in both elementary and secondary grades, but with general student populations. It is difficult to apply these findings to assist teachers of special student populations.

It seems necessary then to begin the cycle again, conducting exploratory research to identify those practices that are most effective with different student populations, conducting experimental training to teach teachers of these student populations to implement these practices, exporting these practices through program development to the field, and evaluating once again.

Finally, we can expand our knowledge to improve practice by looking at teaching and classroom processes through more than one research perspective. Such a multiple perspectives approach, including for example research from the process-product tradition and the sociolinguistic tradition, can yield new insights into classroom practice and provide us with a deeper understanding of how classroom events and processes are played out on a day-to-day basis across a variety of contexts (see Evertson and Smylie, in press). This approach has been used as part of an independent study related to the initial implementation of the Classroom Management Model in one Arkansas school district and has yielded very promising results that may inform the continued development of this and other staff development models (see Evertson et al., 1985a; Weade 1986).

Notes

1. One school district entered the validation study with wavering and competing commitments from the central administration. This was due largely to decisions about resources. This district sent one person to be trained as a trainer who conducted the workshop but observers did not complete all of the observations required for the study. This district was not included in the analysis.

2. We exclude from our analysis those factors identified by Fullan that relate specifically to schools and to local community characteristics that have been found to relate to district-level adoption and school-level implementation of innovations. In addition, we exclude factors related to external government support and assistance. In this case, the state is a primary actor and the federal government has played no role. Discussion of external government support and assistance is therefore irrelevant to this case.

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TABLE 1

RESULTS OF COMPONENT RATINGS FOR ELEMENTARY AND SECONDARY TEACHERS

Component	Elementary		Secondary	
	Exp. (n=35)	Con. (n=35)	Exp. (n=8)	Con. (n=8)
Instructional Management				
1. Describe objectives clearly	3.96	3.41 **	4.95	4.27 **
2. Materials are ready	4.50	4.30	4.92	4.65
3. Clear directions for assignments	4.30	4.20	4.66	4.15 **
4. Waits for attention	4.30	4.00	4.42	3.87 **
5. Appropriate pacing of lesson	4.00	3.60	4.15	3.41 *
6. Clear explanations	4.25	3.81 **	4.45	3.92 *
7. Monitors student understanding	4.25	3.76 **	4.46	3.92 *
8. Consistently enforces work standards	4.06	3.67	4.27	3.41 **
9. Encourages analysis	—	—	4.34	3.46 *
Rules and Procedures				
1. Appropriate general procedures	4.36	3.87 ***	4.57	4.15 *
2. Efficient small group procedures	3.94	3.48	—	—
3. Suitable routines for assigning and checking work	4.10	3.90	4.53	4.20 *
4. Efficient routines	—	—	4.58	4.42
Meeting Student Concerns				
1. Attention spans considered	3.80	3.50	3.87	3.28
2. High degree of student success	3.90	3.80	4.36	3.85 ***
3. Activities related to students' interests	3.50	3.20	3.82	3.11
4. Level of aggressive student behavior	—	—	1.03	1.40 **
Managing Student Behavior				
1. Rewards appropriate performance	3.76	3.16 **	3.93	3.08
2. Consistency in managing student behavior	4.12	3.68 **	4.06	2.97 **
3. Effective monitoring	4.22	3.65 ***	4.05	3.33 *
4. Signals correct behavior	—	—	3.27	2.08 ***
5. Restrictions on student movement	—	—	4.07	2.96 ***

Table 1 (continued)

Student Misbehavior					
1. Amount of disruptive behavior	1.20	1.30		1.16	1.41	
2. Amount of inapproriate behavior	1.90	2.20		1.95	2.76	**
3. Stops inappropriate behavior quickly	3.75	3.09	***	3.10	3.23	
4. Ignores inappropriate behavior	1.81	1.00		2.51	4.10	**
Classroom Climate					
1. Task-oriented focus	4.25	3.93	**	4.53	3.85	***
2. Relaxed, pleasant atmosphere	4.40	4.30		4.52	3.82	**
3. Conveys value of curriculum	—	—		4.48	3.60	**
% of Students Engaged					
1. % students off-task	5.00	10.00	**	7.09	14.79	**
2. % students on-task	87.00	83.00	**	87.95	75.53	**

Notes: Means for component ratings are based on 5-point scales where 1 = low occurrence or least characteristic and 5 = high occurrence or most characteristic.

Totals for % of Students Engaged may not equal 100% because observers recorded occurrences of students who were "probably on-task." Percentages of students in this category are not included in this table. No significant differences were found between experimental and control groups for either elementary or secondary teachers on this variable.

*** $p = \leq .01$
** $p = \leq .05$
* $p = \leq .10$
— not measured

Table 2

Differences in Results of Component Ratings by Districts Studying Elementary Teachers

Component	District A		District B		District C		District D	
	Exp. (n=6)	Con. (n=6)	Exp. (n=8)	Con. (n=8)	Exp. (n=13)	Con. (n=13)	Exp. (n=8)	Con. (n=8)
Instructional Management								
1. Describe objectives clearly	3.2	2.1 *	4.6	3.7 *	4.2	3.8	3.6	3.7
2. Materials are ready	4.7	4.6	4.6	4.0	4.4	4.4	4.3	4.2
3. Clear directions for assignments	4.2	4.0	4.7	4.3	4.4	4.2	3.8	4.2
4. Waits for attention	4.3	4.0	4.6	3.9 *	4.1	4.1	4.1	3.9
5. Appropriate pacing of lesson	4.4	3.9	4.3	3.2 *	3.8	3.7	3.6	3.7
6. Clear explanations	4.4	3.7 *	4.6	3.8 *	4.1	3.9	3.8	3.7
7. Monitors student understanding	4.6	3.8 *	4.2	3.4 *	4.3	4.1	4.0	3.6
8. Consistently enforces work standards	4.4	3.9	4.1	3.4 *	4.2	3.8	3.8	3.5
Rules and Procedures								
1. Appropriate general procedures	4.5	3.9	4.4	3.5 *	4.4	4.0	4.3	4.1
2. Efficient small group procedures	4.1	2.3 *	-	-	4.0	4.1	3.7	3.6
3. Suitable routines for assigning and checking work	4.3	4.0	4.2	3.3 *	4.1	3.9	3.9	4.3
Meeting Student Concerns								
1. Attention spans considered	4.3	3.6 *	4.0	3.3 *	3.7	3.5	3.3	3.4
2. High degree of student success	3.9	3.8	3.8	3.4	4.0	4.0	4.0	3.8
3. Activities related to students' interests	3.4	2.6 *	3.5	3.3	3.6	3.3	3.6	3.5
Managing Student Behavior								
1. Rewards appropriate performance	3.9	2.6 *	3.5	2.9	3.8	3.3	3.9	3.7
2. Consistency in managing student behavior	4.5	3.8 *	4.3	3.2 *	4.0	3.8	3.9	3.8
3. Effective monitoring	4.5	4.0	4.3	3.3 *	4.1	3.7	4.3	3.6 *

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Table 2 (continued)

Student Misbehavior								
1. Amount of disruptive behavior	1.2	1.3	1.1	1.3	1.1	1.1	1.2	1.3
2. Amount of inappropriate behavior	1.6	1.8	2.0	3.0 *	1.9	1.9	2.1	2.2
3. Stops inappropriate behavior quickly	3.5	2.7 *	3.9	3.1 *	3.9	3.3	3.6	3.4
4. Ignores inappropriate behavior	2.2	3.1 *	2.3	2.1	1.3	1.4	1.7	2.1
Classroom Climate								
1. Task-oriented focus	4.7	4.2	4.3	3.5 *	4.2	4.0	4.1	4.0
2. Relaxed, pleasant atmosphere	4.6	4.5	4.4	3.8	4.2	4.4	4.3	4.3
% of Students Engaged								
1. % of students off-task	2.0	5.0	4.0	16.0 *	8.0	11.0	7.0	9.0
2. % of students on-task	98.0	95.0	88.0	74.0 *	85.0	82.0	82.0	82.0

Notes: Means for component ratings are based on 5-point scales where 1 = low occurrence or least characteristic and 5 = high occurrence or most characteristic.

Totals for % of Students Engaged may not equal 100% because observers recorded occurrences of students who were "probably on-task." Percentages of students in this category are not included in this table. No significant differences were found between experimental and control groups for any of these four districts on this variable.

* $p = \leq .05$

TABLE 3

FACTORS AFFECTING ADOPTION, IMPLEMENTATION, AND INCORPORATION OF EDUCATIONAL INNOVATIONS

1. Factors Affecting Adoption

   a) Existance and quality of innovations
   b) Access to information about innovations
   c) Advocacy from central administrators
   d) Teacher advocacy
   e) Linking agents
   f) Availability of funds
   g) New central legislation or policy
   h) Problem-solving orientations
   i) Bureaucratic orientations

2. Factors Affecting Implementation

   a) Characteristics of the innovation

      1) Need
      2) Clarity about goals and means
      3) Complexity
      4) Quality and practicality

   b) Characteristics at the State and District Levels

      1) The history of innovation attempts
      2) The adoption process
      3) Central administrative support
      4) Staff development and participation
      5) Participation in implementation decisions
      6) Time-line and information systems

3. Factors Affecting Continuation

   a) Continued financial support
   b) Continued support from central office administrators and local school districts
   c) Staff turnover
   d) Degree of initial implementation
   e) Attitude toward the innovation
   f) Impact on students, teachers, and schools

Source: Fullan, M. (1982), The meaning of educational change. New York: Teachers College Press.

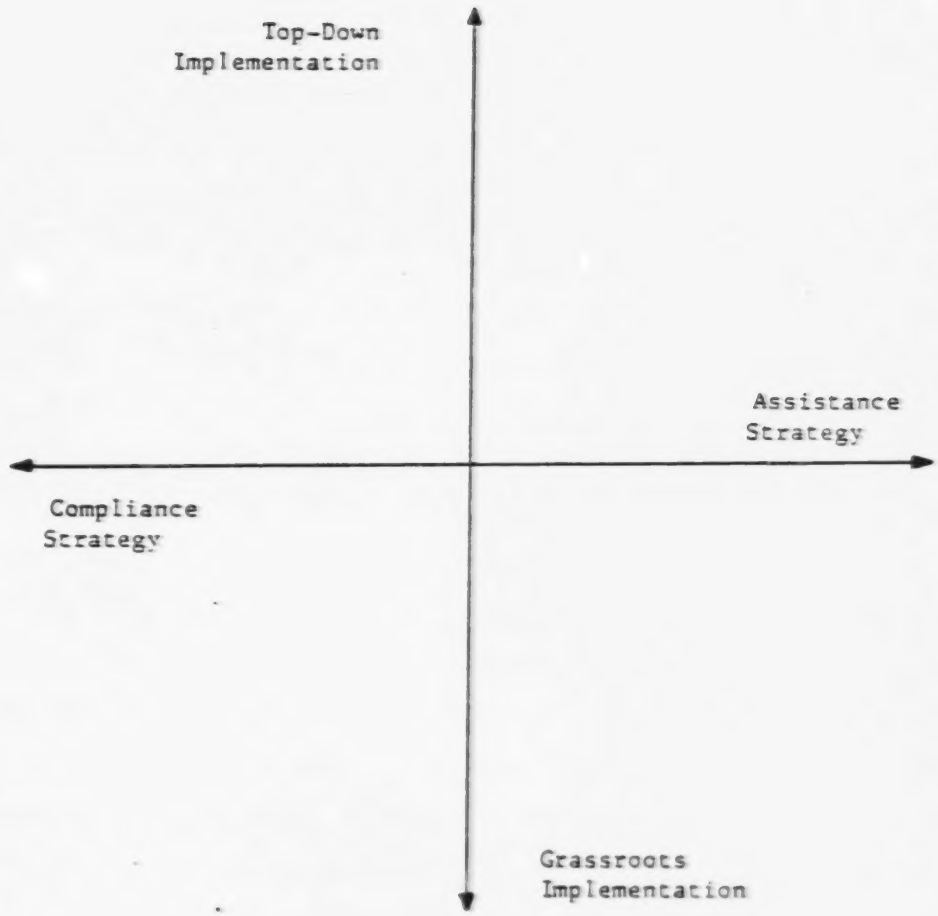

Figure 1

Typology for the Classification of Policies by

Strategy and Level of Implementation

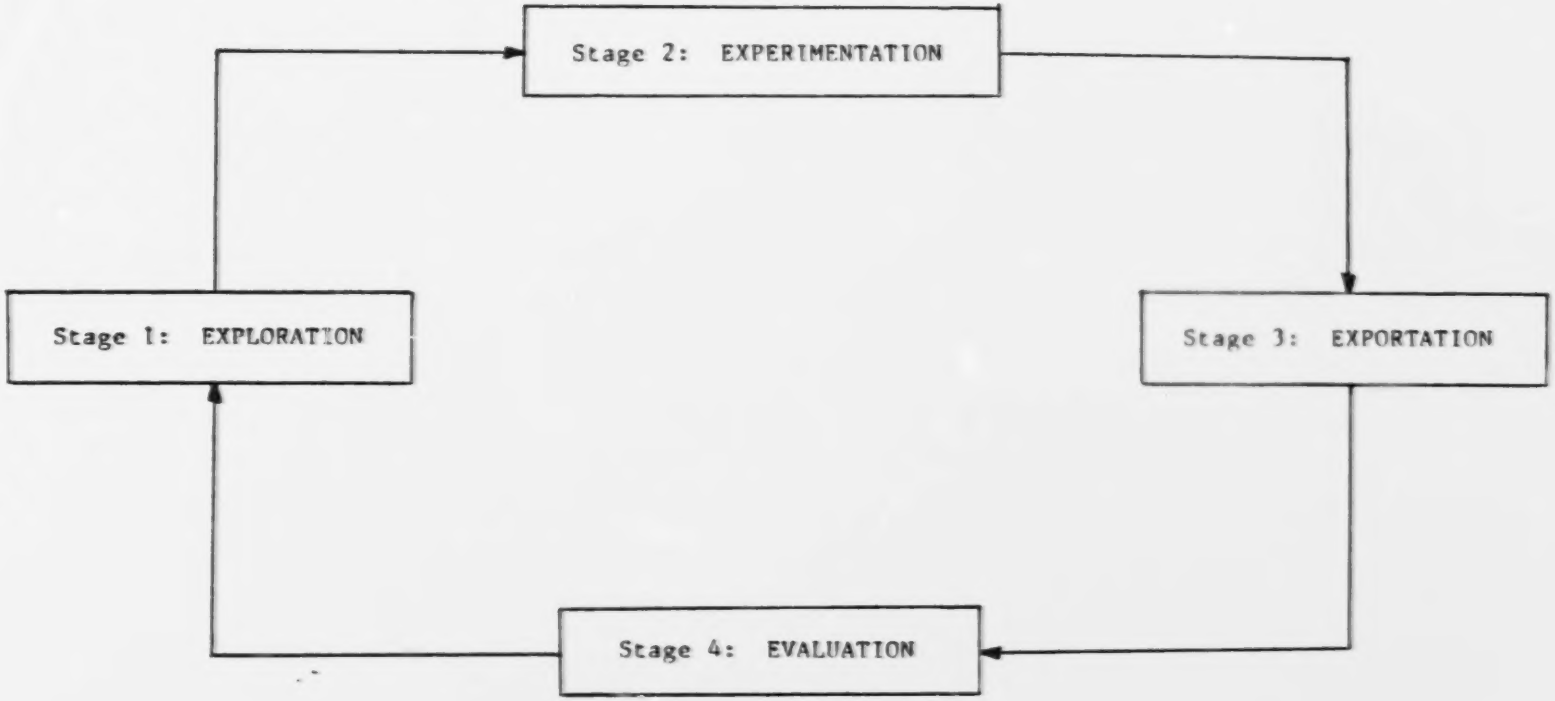

Figure 2

Model for the Development and Implementation of Staff Development Programs

Figure 3

Continuum of the Use of Research in Policy